B/2665/92

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	Zellner et al.	Examiner:	Man Phan
Serial No.:	09/559,594	Group Art Unit:	2665
Filed:	April 28, 2000	Docket No.:	60027.0365USI2
Title:	SYSTEM AND METHOD FOR DYNAMIC ALLOCATION OF CAPACITY ON WIRELESS NETWORKS		

CERTIFICATE UNDER 37 CFR 1.8:
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail, with sufficient postage, in an envelope addressed to: Mail Stop ISSUE FEE, Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 May 9, 2005.

By: Michael T. Lukon
Name: Michael T. Lukon

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT (37 C.F.R. § 1.97(d))

Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner. At least some of the items were recently cited in an International Search Report mailed April 11, 2005.

This statement should be considered because it is submitted after the mailing date of a final action under 37 C.F.R. § 1.113 or after the mailing date of the Notice of Allowance under 37 C.F.R. § 1.311 or after any other action that closes prosecution on the application, but before the payment of the issue fee. Please charge the fee of $180.00 as set forth in 37 C.F.R. § 1.17(p) to Deposit Account No. 13-2725. This statement is submitted as certified below under 37 C.F.R. §1.97(e)(1) or (2) by the undersigned.

Certification Under 37 C.F.R. §1.97(e)(1)

In accordance with 37 C.F.R. §1.97(c) or §1.97(d), the undersigned hereby certifies that each item of information listed on the enclosed Form 1449 was first cited in a communication from a foreign patent office in a counterpart foreign application within three months of filing this statement.

Certification Under 37 C.F.R. § 1.704(d)

In accordance with 37 C.F.R. § 1.704(d), the undersigned hereby certifies that each item listed on the enclosed Form 1449 was cited in a communication from a foreign patent office in a counterpart application, and that this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty (30) days prior to the filing of this Information Disclosure Statement. Accordingly, no patent term adjustment is due for the filing of this Information Disclosure Statement.

In accordance with 37 C.F.R. §1.98(a)(2), a copy of each document or other information listed on the enclosed Form 1449 is provided. Enclosed for the Examiner's information is a copy of the International Search Report. Applicants note that references EP 0 370 826, EP 0 717 579 and 5,574,977 also listed in the search report were previously cited to or by the Examiner.

No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication. For the Examiner's convenience, we have also provided a copy of the claims as filed in the European Divisional Application for which the abovementioned International Search Report was issued.

Please charge any additional fees or credit any overpayment to Deposit Account No. 13-2725.

Respectfully submitted,

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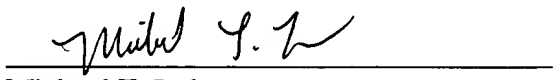
Date: May 9, 2005



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FORM 1449*

INFORMATION DISCLOSURE STATEMENT

IN AN APPLICATION

(Use several sheets if necessary)

Docket Number: 60027.365USI2	Application Number: 09/559,594
Applicant: ZELLNER ET AL.	
Filing Date: 04/28/2000	Group Art Unit: 2665

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	5,521,925	05-1996	Merakos et al.	370	95.3	

FOREIGN PATENT DOCUMENTS

	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	WO 97/16040	05-1997	PCT				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		European Search Report dated 04/11/05 on Application No. 04078485.2

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.

CLAIMS:

1. A method for transmitting data using idle channels in a switched communications system including a control switch (14) and a controlled node access point (22) with a limited number of channels at each node; comprising connecting and disconnecting remote users (26, 28,30) on a priority basis **characterized by the steps of**:-
   i) requesting connection of a first remote user (26) having a first priority level;
   ii) if no data connection is idle,
      a) disconnecting any connected second remote user (28, 30) having a priority lower than that of the first remote user, and,
      b) connecting the first user.

2. The method of claim 1 **and further characterized in that** the first remote user (26) has multiple channels with one or more priorities.

3. The method of claim 2 **and further characterized in that the** multiple channels are voice and/or data channels.

4. The method of claim 2 **and further characterized in that** the multiple channels provide enhanced speed data transmission to the first remote user device (26).

5. The method of any of claims 2 to 4 **and further characterized by the step of** allowing the remote user (26,28,30) to access a mixture of priority assignments

6. The method of any of claims 1 to 4 **and further characterized by the step of** storing priority level information for each remote user (26,28,30) at the control switch (14).

7. The method of claim 6 **and further characterized by the step of** associating the priority level with the mobile identification Number (MIN) for each remote user (26,28,30).

8. A method as claimed in any of claims 1 to 7 **and further characterized by the steps of-**:
   i) placing the first remote user (26) request in a queue if a second remote user (28,30) with a priority lower than the first remote user is not found;
   ii) ordering the queue; and
   ii) when a channel becomes idle, allocating that idle channel to the remote user at the head of the queue.

9. A method as claimed in any of claims 1 to 7 **and further characterized by the step of** searching for the second remote user (28,30) based on the duration of the second remote user's call.

10. A method as claimed in claim 9 **and further characterized in that,** upon disconnection of the second remote user (28,30), a request for connection of the second remote user is placed in the queue for connection when an idle channel becomes available.

11. A method as claimed in any of claims 8 to 11 **and further characterized in that** the queue is ordered based on priority of each remote user in the queue.

12. A method as claimed in any of claims 1 to 11 **and further characterized by the steps of:-**
    i) recognizing and marking that point in data transmission where the second remote user (28,30) was disconnected; and,
    ii) picking up the data transfer at the point of termination, on reconnection of the second user.

13. A method as claimed in claim 12 **and further characterized by the steps of:-**
    i) upon disconnection of any connected second remote user (28, 30), maintaining connection with a public switched network (12) and resuming data transfer on reconnection of the second user (28,30);
    or,
    ii) if a data connection to a second remote user (28, 30) is not available, storing all the data for the second remote user, disconnecting from a public switched network (12) and transferring the stored data to the second remote user when a data connection becomes available.

14. A method as claimed in any of claims 1 to 13 **and further characterized in that** the data transmissions comprise facsimile transmission and/or email.

15. A switched communications system comprising a control switch (14), remote user devices (26, 28, 30) and a controlled node access point (22) with a limited number of channels of data service per network access node, wherein the switch connects and disconnects remote user devices on a priority basis **characterized in that:-**
    i) a memory (20) contains a database in which is recorded a priority assignment associated with an identifier of each remote user device (26,28,30);
    and,
    iii) a node controller (18) operatively connected to the memory and configured to control the functions of the switch (14) wherein the node controller:-
        a. receives a request for data service at the switch for a first remote user (26);
        b. ascertains if any data channel at the access node (22) of the first remote user is idle;
        c. if a data channel is not idle,
            a. checks the priority of the first remote user;
            b. searches for a second remote user (28 or 30) with any priority lower than the first remote user among the remote users that are using the data channels of the access node;

c. if a second remote user with a priority lower than the first remote user is found terminates the call of the second remote user; and

d. allocates the data channel of the second remote user to the first remote user;

iv. when a data channel becomes idle, allocates that idle data channel to the remote user at the head of the queue;

16. A system as claimed in claim 15 **and further characterized in that** the memory (20) contains a database in which is recorded multiple different and/or mixed priority assignments with multiple identifiers for at least one remote user device (26,28,30).

17. A system as claimed in claim 16 **and further characterized in that the** multiple channels are voice and/or data channels.

18. A system as claimed in claim 16 or 17 **and further characterized in that** there are three channels of data service, one channel of high priority data service and two additional channels of lower priority data service; whereby, in use, the remote user device (26,28,30) has high priority access for data transmission at all times and enhanced speed data transmission during off-peak times by use all three channels together.

19. A system as claimed in any of claims 15 to 18**and further characterized in that** the memory database (20) stores priority level information associated with the mobile identification Number (MIN) for each remote user (26,28,30).

20. A system as claimed in any of claims 15 to 19 **and further characterized in that,** if a channel is not idle, the node controller (18) operates to:-

i) establish a queue and place the request for service for the first remote user (26) in the queue;

ii) order the queue based on the priority of the remote users (26,28,30) in the queue; and

iii) when a channel becomes idle, allocate that idle channel to the remote user at the head of the queue.:-

i) placing the first remote user (26) request in a queue if a second remote user (28,30) with a priority lower than the first remote user is not found;

ii) ordering the queue; and

ii) when a channel becomes idle, allocating that idle channel to the remote user at the head of the queue.

21. A system as claimed in any of claims 15 to 20 **and further characterized in that:-**

i) the switch (14) further comprises a buffer (16) for receiving and storing inbound data when the request for service for the first remote user (26) includes transmitting the data to the first remote user,

wherein the inbound data is stored in the buffer until the first remote user is assigned an idle channel and the inbound data is transmitted to the first remote user from the buffer when the first remote user is assigned an idle channel.

22. A system as claimed in any of claims 15 to 21 **and further characterized in that** there are three channels of data service, one channel of high priority data service and two additional channels of lower priority data service; whereby, in use, the remote user (26,28,30) has high priority access for data transmission at all times and enhanced speed data transmission during off-peak times by use all three channels together.

23. A remote user device for a system as claimed in any of claims 15 to 22 **and characterized in that** the remote user device (26,28,30) has means to access a mixture of priority assignments

24. A remote user device as claimed in claim 23 as dependent upon claim 22 **and further characterized in that** the remote user device (26,28,30) has multiple mobile identification Numbers, each with a different priority or a mixture of priorities.

25. A remote user device as claimed in claim 23 or claim 24 **and further characterized in that** the remote user device (26,28,30) provides three channels of service.